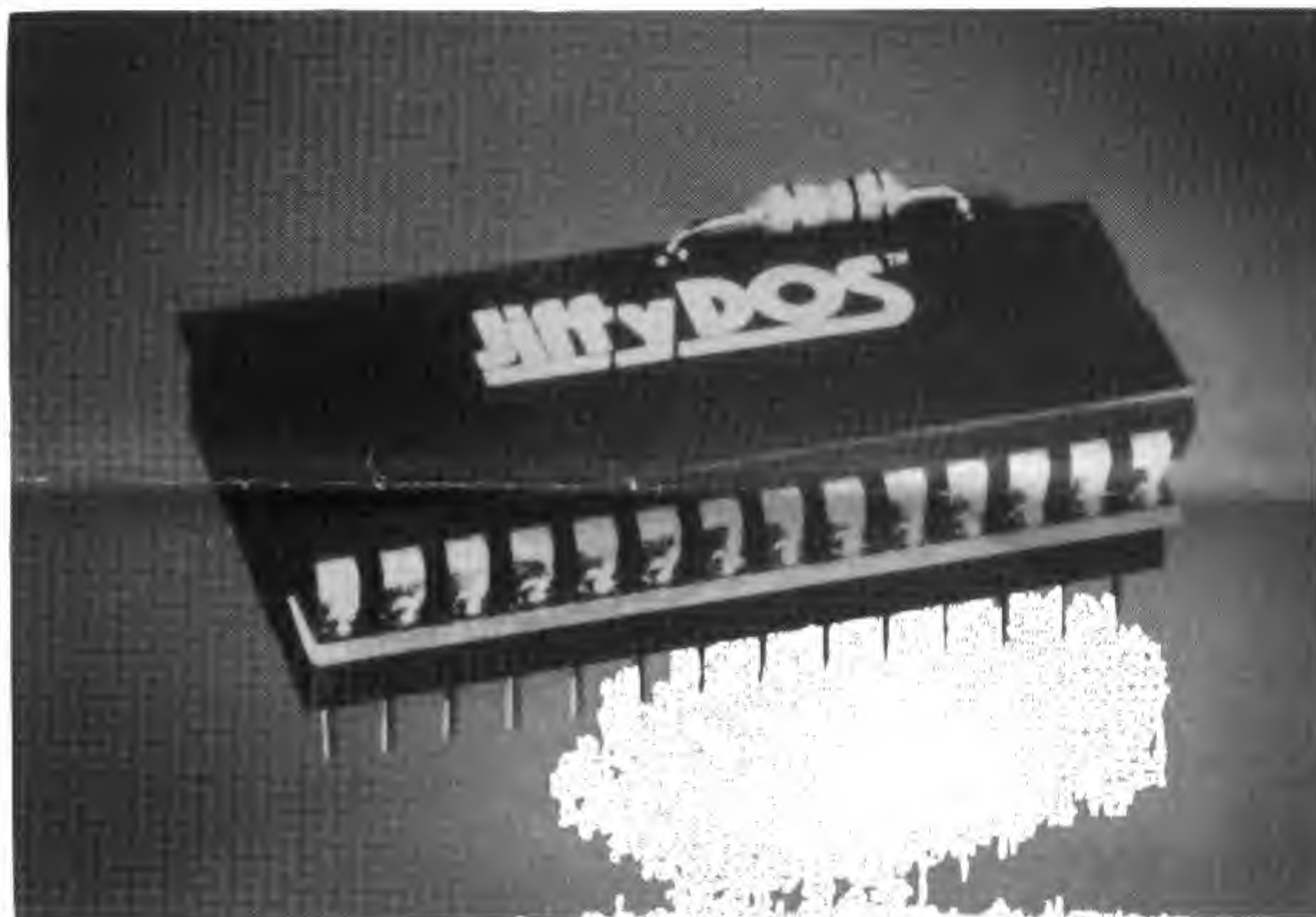


JiffyDOS™

Disk Drive Speed Enhancement System for Commodore Computers

- Speeds up ALL disk operations
- Load, Save, Format, Scratch, and access PRG, SEQ, REL & USR files up to 15 times faster
- Compatible with virtually all C-64 and C-128 hardware and software
- Uses no memory or ports
- Requires no extra cabling
- Built-in DOS Wedge with 17 additional commands
- Built-in file copier, screen dump, and single-key command entry
- 128 version speeds up disk access in both 64 and 128 modes
- Easy, do-it-yourself installation
- 30-day, money-back Compatibility Guarantee



What is JiffyDOS?

JiffyDOS is an enhanced Disk Operating System that gives your C64 or C128 the disk-access speed it has always needed. A chip-for-chip replacement for the Kernel ROM in your computer and the DOS ROM in your disk drive(s), JiffyDOS achieves levels of performance and compatibility unmatched by other speed-enhancement products. Outstanding speed, compatibility with virtually all hardware and software, and a new set of desperately-needed commands and features give your system a new lease on life and the power to compete with today's newer, more-expensive machines.

Why is JiffyDOS different?

JiffyDOS should not be confused with Cartridges, Turbo ROMs, Burst ROMs or "Parallel" systems. Ultra-high-speed multi-line serial technology enables JiffyDOS to outperform these products without any of their inherent disadvantages. JiffyDOS leaves all ports on your computer open, works with virtually all software, speeds up PRG, SEQ, REL and USR files, and does not require any extra cabling. Owning JiffyDOS also gives you access to some of the best product support available.

Available for virtually all Computers and Drives

JiffyDOS Kernel and disk drive DOS ROMs are available for all Commodore 64 and 128 computers as well as most Commodore disk drives, including:

- C64, 64C, SX-64
- C128, 128-D
- 1541, 1541C, 1541-II, 1571, 1581 & more

Built-in Commands and Features that make it easy

In addition to speeding up disk access, JiffyDOS makes using your computer easier and more enjoyable. The built-in commands enable you to perform everyday disk-housekeeping chores without having to write programs in BASIC. With JiffyDOS, you can format disks, load, save, scratch and rename files with just a few keystrokes. In addition, a full complement of convenience features make things even easier. These features include: Directory listing to screen or printer (memory not affected), function key definitions that work with the directory listing (eliminates the need to type lengthy file-names), a screendump, built-in file copier and more.

Speed plus Compatibility

Besides being fast, JiffyDOS is also the most compatible speed-enhancement system available. Designed on the premise that compatibility is just as important as speed, JiffyDOS loads and operates with virtually all software (including copy-protected commercial programs), and is compatible with all Commodore 64/128 hardware and peripherals. No other disk drive speed enhancement system can come close to working with as much hardware and software. And, we back up our claims with a 30-day, money-back compatibility guarantee.

Easy Installation

JiffyDOS is surprisingly easy to install. Clearly-written, illustrated, step-by-step instructions are provided to guide you through the process of installing the JiffyDOS ROMs in your computer and disk drive(s). Even those who have never seen the inside of a computer before can complete the installation in less than one hour and will find the experience interesting and rewarding. And, if any questions happen to arise, our product support staff is on hand to provide you with the help you need.

JiffyDOS - Speed that works all of the time





Load programs and data files up to 15 times faster

JiffyDOS speeds the loading of BASIC programs, public-domain software, data files, and virtually all commercial software – including programs that are heavily copy-protected. Unlike cartridges, JiffyDOS becomes an integral part of your system, and cannot be rendered ineffective by complex multiple-file load sequences or copy-protection schemes. And, JiffyDOS keeps working even after a program is up and running – enabling you to load data files, overlays and program modules at maximum speed.

Save programs and data files up to 4 times faster

Faster saving with JiffyDOS is automatic and works for you at all times – even from within other programs. This means that all your data files and programs will be saved at maximum speed. And, unlike other products that boast quicker saving, *JiffyDOS does not bypass any error checking routines.*

Speed Comparisons

Stock Drive  1541 w/JiffyDOS  1571 w/JiffyDOS  1581 w/JiffyDOS  All times are in seconds

Speed up PRG, SEQ, REL and USR file access

Perhaps the most important feature of JiffyDOS is its ability to speed up *all disk accesses* – including the reading and writing of PRG, SEQ, USR, REL and direct-access files. Unlike Cartridges and Turbo ROMs, JiffyDOS is effective in speeding up the many disk-intensive programs that use these file types – including databases, spreadsheets, wordprocessors, and MIDI software.

Fast formatting on 1541 and 1571 disk drives

A JiffyDOS-equipped 1541 (or compatible) will format a disk in about 21 seconds. A 1571 with JiffyDOS will format one side in 21 seconds and both sides in about 42 seconds – *even with a C-64 or a C-128 in 64 mode!* And, unlike the 9-second format utilities, the JiffyDOS format is built in, will work from within programs, and does not bypass the error checking that ensures you of a properly formatted disk.

Simultaneously speed up 1541, 1571, and 1581 drives

JiffyDOS is the only system that is able to simultaneously speed up 1541, 1571 and 1581 drives (and compatibles) with C-64's, 64C's, SX-64's, and C-128's in both 64 and 128 modes. With JiffyDOS, a 1541 becomes faster than a stock 1571 in 128 mode. And, JiffyDOS-equipped 1571 and 1581 drives become even faster than they already are with a C-128 in 128 mode!

Special features for 1571 disk drives

- Allows you to automatically access and format *both sides* of a disk at all times – even with a C-64 or a C-128 in 64 mode.
- Incorporates the latest Commodore ROM upgrade which eliminates bugs affecting Relative files, drive initialization, etc.
- Solves the problems with disk backup utilities (*Fast Hack'em*, etc.) caused by the Commodore upgrade.

Loading Programs

Times for 202-block PRG file

C-64 or C-128 in 64 mode



C-128 in 128 mode



Reading SEQ and USR files

Times for 125-block SEQ or USR file

C-64 or C-128 in 64 mode



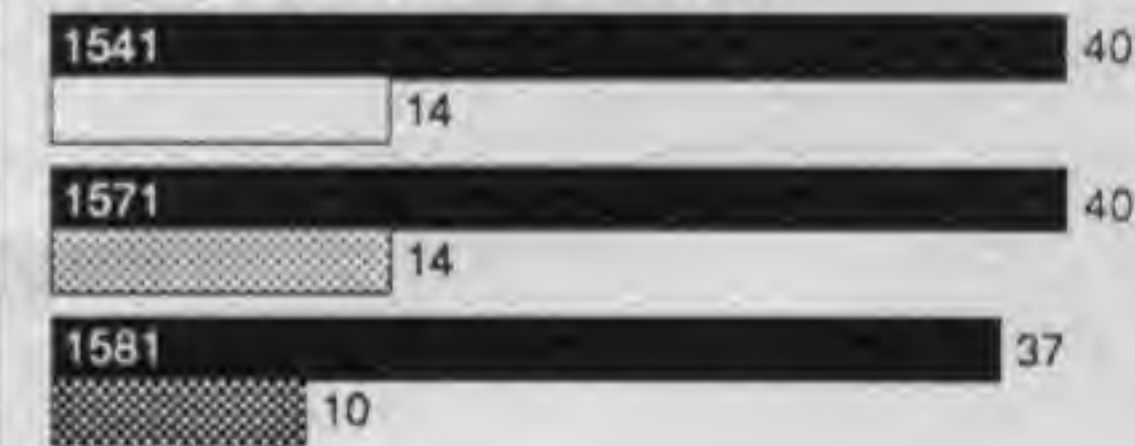
C-128 in 128 mode



Reading REL files

Times for 64 154-byte REL records

C-64 or C-128 in 64 mode



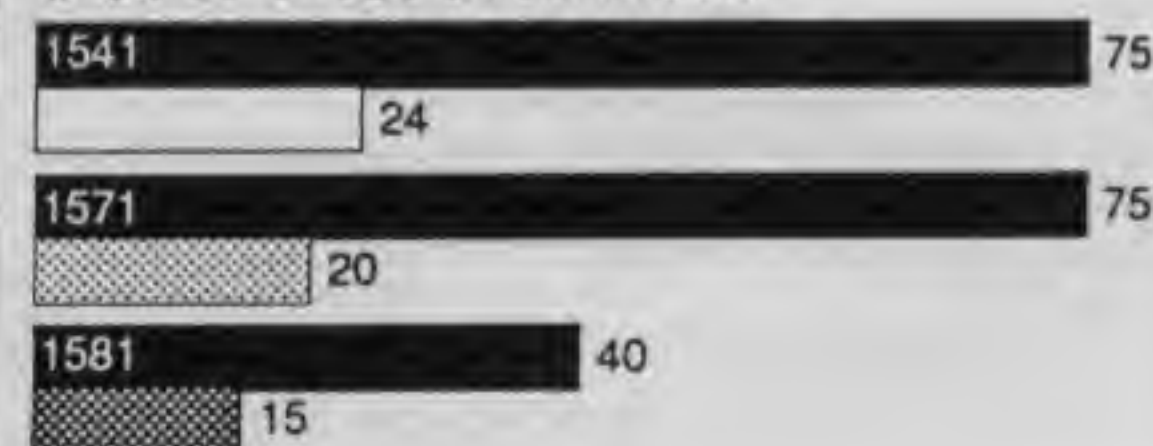
C-128 in 128 mode



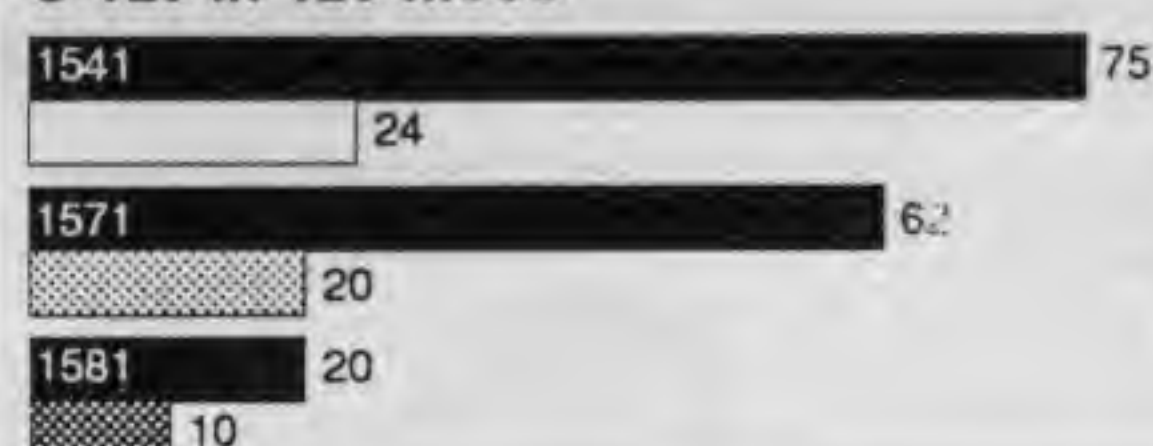
Saving Programs

Times for 100-block PRG file

C-64 or C-128 in 64 mode



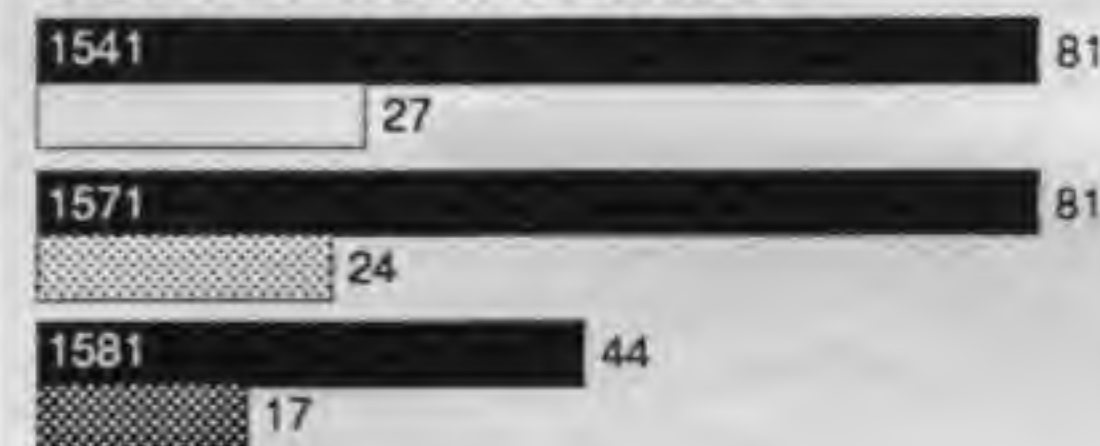
C-128 in 128 mode



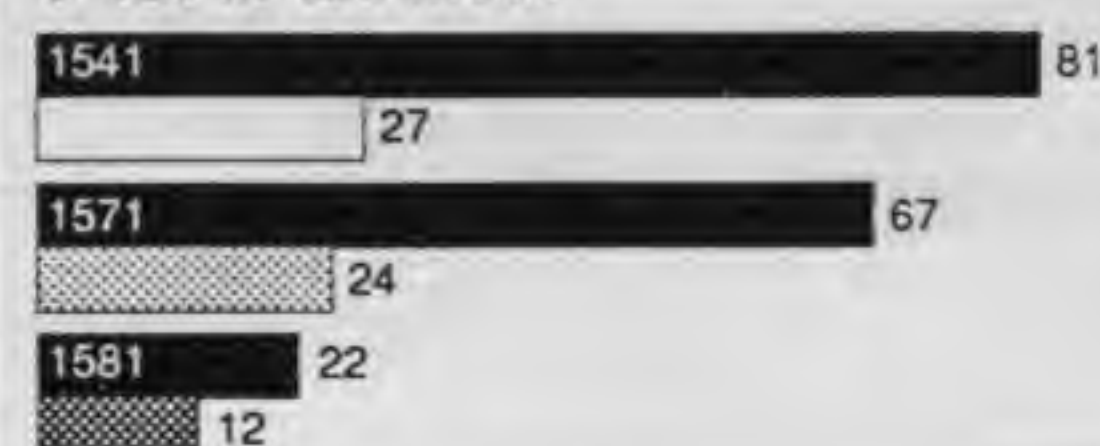
Writing SEQ and USR files

Times for 100-block SEQ or USR file

C-64 or C-128 in 64 mode



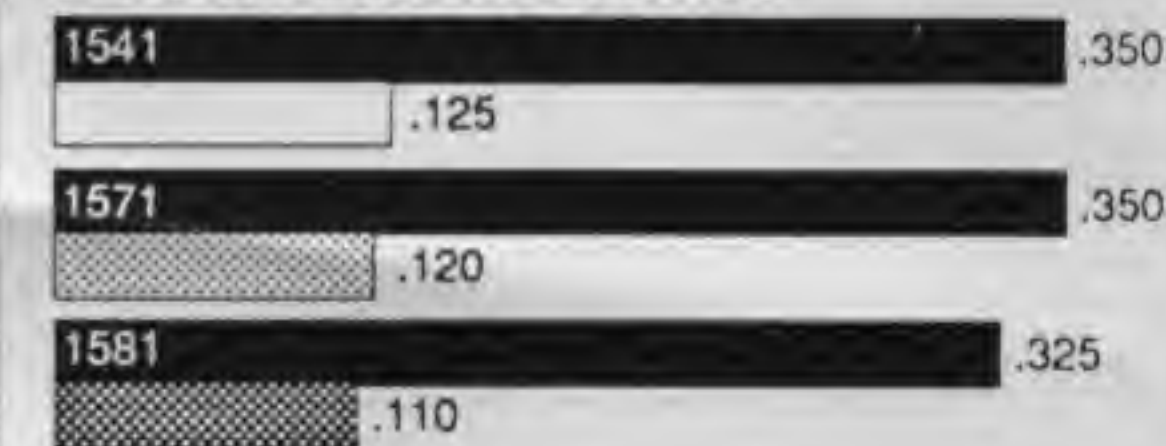
C-128 in 128 mode



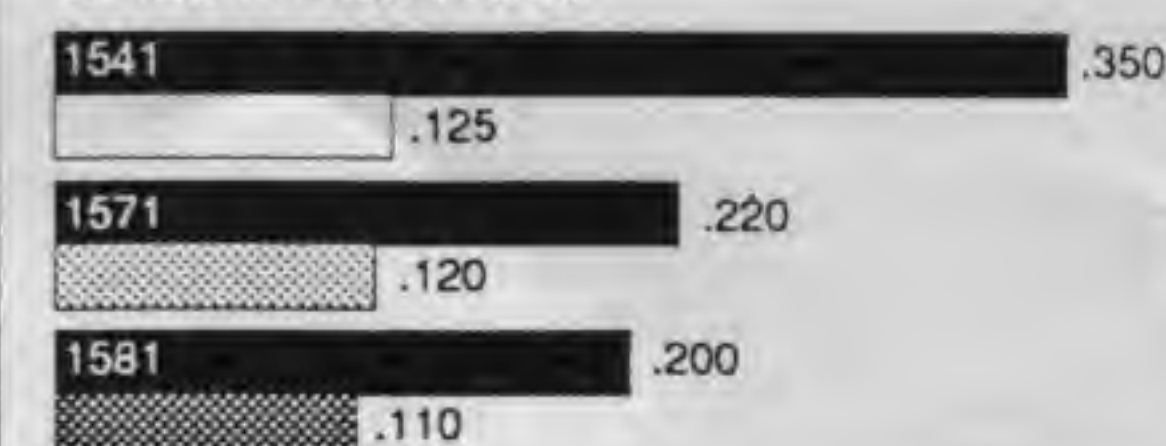
Writing REL files

Times for one 154-byte REL record

C-64 or C-128 in 64 mode



C-128 in 128 mode



Compatibility by design

Money-Back

Compatibility Guarantee

The JiffyDOS guarantee is simple: If you are dissatisfied because of incompatibility with any of your C-64/C-128 hardware or software, simply return your JiffyDOS system in its original condition within 30 days of purchase for a complete refund.

We are able to offer this guarantee because JiffyDOS was designed on the premise that compatibility is just as important as speed (what good is a speedup system if it works with only a few programs?). As a result, JiffyDOS is the most compatible speed-enhancement system available – no Cartridge, Turbo ROM, Burst ROM or Parallel system can come close to working with as much hardware and software.

Uses no ports, memory or extra cabling

All ports on your computer are left open, enabling you to use JiffyDOS with modems, RAM expanders, cartridges, etc. No extra memory is required, which leaves maximum ROM and RAM available for use by other programs. And, unlike "parallel" speedup systems, *no extra cabling is required between your computer and drives.*

Does not bypass any error checking routines

All JiffyDOS operations retain the built-in error checking routines that are a necessary part of any reliable data storage system. Unlike other products that bypass these routines, JiffyDOS provides speed without jeopardizing the integrity of your data.

Uses stock disk & file formats

This feature enables you to speed up all your existing programs and files without having to modify them in any way. Also, you will have no problems using the disks and files you create with JiffyDOS on stock systems.

Can be easily switched out

JiffyDOS includes a unique, easy-to-use switching system that enables you to select either JiffyDOS or the stock DOS with the flip of a switch. Although switching to stock mode is rarely required, this feature ensures that you will be able to load all your present and future software. And, *you can use the switch even while a program is running – without having to power down or reset!*

Incorporates the latest Commodore ROM upgrades

If your computer or disk drive is equipped with older ROMs, installing JiffyDOS is like getting a free upgrade. Each JiffyDOS system incorporates the latest Commodore upgrades, and will bring your Kernal and DOS ROMs up to the latest revision level.

Software Compatibility

JiffyDOS will speed up the initial loading and file access operation of virtually every program you own. This even includes the many copy-protected commercial programs that cannot be loaded by other speedup systems. Programs like *Pocket Writer*, *Pocket Filer*, *Word Writer*, *Multiplan*, *Swiftcalc*, *Data Manager*, *Superbase*, *Printshop*, and *Fast Hack'Em* (to name just a few) are all compatible with JiffyDOS.

CP/M and GEOS compatible

JiffyDOS is completely compatible with CP/M on the C-128 and provides speedups with 1541, 1571 and 1581 drives. JiffyDOS is also GEOS compatible and speeds up the operation of GEOS-128 with 1571 and 1581 drives (GEOS-64 includes its own built-in speedup system that bypasses JiffyDOS).

Save time on line

If you own a modem you'll soon discover that JiffyDOS can save you money. Disk accesses during uploading and downloading take place faster, enabling you to *save up to 40% on long distance and on-line charges.*

Below is just a partial list of the various types of JiffyDOS-compatible programs. Even if you own a program that does not fall into any of these categories, chances are excellent that it is compatible with JiffyDOS. Please call or write for more information.

- Wordprocessors
- Spreadsheets
- Graphics programs
- Games
- BASIC programs
- Programming languages
- Copy programs
- Disk utilities
- MIDI software
- Bulletin board systems
- Q-Link/Compuserve/GENie

Hardware Compatibility

JiffyDOS is designed to work with all C-64 and C-128 hardware and peripherals. Unlike cartridges and "parallel" systems, JiffyDOS installs internally and does not require the use of any ports on your computer. This enables JiffyDOS to work in conjunction with all serial bus devices as well as with the wide variety of devices that plug directly into the Cartridge, User, and Cassette Ports on your machine. A partial list of compatible hardware includes:

- Modems
- Printers
- Printer interfaces
- Cartridges
- Commodore RAM expanders
- Quick Brown Box RAM units
- Parallel disk-backup systems
- EPROM programmers
- MIDI interfaces
- C-128 "spare socket" ROMs
- Speech synthesizers
- Digitizers

Compatible with all stock serial bus devices

JiffyDOS systems are compatible with all stock serial bus peripherals. Printers, printer interfaces, and all types of disk drives will work in conjunction with JiffyDOS on the serial bus without presenting any compatibility problems. JiffyDOS-equipped computers and drives automatically sense whether they are communicating with JiffyDOS or stock devices. This enables JiffyDOS to select the proper data transfer rate at all times – which means that you will be able to mix stock equipment (disk drives, printers, computers, etc.) with your JiffyDOS equipment and not experience any compatibility conflicts.

Supports multiple drives

Adding JiffyDOS to a second, third or fourth drive is as easy as installing another ROM. JiffyDOS can be installed regardless of device numbers. And, you can still change device numbers via software or hardware on JiffyDOS-equipped drives.

Supports RAM expanders

JiffyDOS speeds up data transfers to and from RAM expansion units (1700, 1750, 1764, and Quick Brown Boxes). In addition, JiffyDOS is the only speed-enhancement system that includes a built-in DOS Wedge that supports Commodore's RAMDOS.

Easy to use

No new commands or procedures to learn

After you install JiffyDOS, you can use your computer immediately and still gain the full benefit of increased speed – without having to learn a single command. However, to make using your computer even easier, we have added a number of commands and features that can be used at your discretion.

Disk directory

The "@\$" command enables you to list the disk directory to the screen (or to a printer) without disturbing your computer's memory.

Built-in file copier

JiffyDOS incorporates a *built-in* file copier that enables you to copy files (PRG, SEQ, USR, REL) between any two disk drives (or to and from REU's). Control-key combinations that work with the directory make it easy to select the files you want to copy.

One-key loading

You can load and run the first program on disk by pressing SHIFT-RUN/STOP. If the program you want to run is not the first one on disk, you can list the directory and use the appropriate function key (see below).

Function key definitions

The JiffyDOS function keys work with the directory and enable you to load, save, scratch, run & list files with a single key-stroke. In 128 mode, the keys can be easily switched back to the stock definitions (or re-programmed). In 64 mode (or with a C-64) the keys can be reprogrammed or disabled.

Screen Dump

Prints text screens (uppercase/graphics or lower case) from within most programs.

Built-in Commands

JiffyDOS makes disk housekeeping easy. Instead of having to write a program to perform everyday DOS functions (like scratching files), you can enter simple, one-line commands that are easy to learn and remember. The Commodore DOS 5.1 Wedge is included along with a series of powerful new commands. Perhaps the best thing about the JiffyDOS commands is that they are *built-in* – which means that you can use them immediately after turning your computer on, without the bother of having to load a memory-consuming utility from disk. As an additional feature, you can also use the commands within your own BASIC programs.

Commodore DOS Wedge Commands

Display the disk drive error channel	@
Copy or Combine files to the same disk	@C:newfile=oldfile
Initialize the disk drive	@I
New (format) a disk - 21 seconds (on 1541)	@N:diskname,ID
New an already formatted disk-3 seconds	@N:diskname
Rename a file	@R:newname=oldname
Scratch a file or files	@S:file1<,file2> ...
Reset the disk drive	@UJ
Validate (collect) a disk	@V
Display the directory to screen or printer	@\$
Set the default drive	@#device
Load a BASIC program	/filename
Load and Run a BASIC program	↑filename
Load an ML program	%filename
Save a BASIC program	←filename

Additional JiffyDOS Commands

Disable the 1541 drive head Bump (rattle)	@B
List a BASIC program from disk to screen or printer	@D:filename
Disable the JiffyDOS Function Keys	@F
Change sector interleave (Inter-sector Gap)	@G gapsize
Lock/Unlock a file	@L:filename
Old (un-NEW) a BASIC program	@O
Toggle screen output to Printer	@P<,device><,sec. addr.>
List a Text (ASCII) file from disk to screen or printer	@T:filename
Set destination drive for file copier	@X destination
Copy files from drive-to-drive (or to/from REU)	*"filename" filetype
Mark/Unmark all files for copying	<CONTROL-A>
Mark/Unmark one file for copying	<CONTROL-W>
Verify a BASIC or ML program	' filename
Print screen (screen dump)	<CONTROL-P>
Load and run an ML program	£filename
Load and Run the first program on disk	<SHIFT-RUN/STOP>
Quick Default Drive toggle	<CONTROL-D>

Easy to install

No technical experience or special tools necessary

Installation is a do-it-yourself operation and can be performed in less than one hour. Complete, illustrated, step-by-step instructions are provided to guide you through the process of opening up your computer and drive, locating the stock ROMs and replacing them with the JiffyDOS ROMs. If you have any questions, our product support staff will provide you with the answers. To give you an idea of how easy it is to install JiffyDOS, we have outlined the five basic installation steps:

1. **Open up the cases of your computer and disk drive(s).** This requires only a screwdriver to remove the screws holding the computer and disk drive cases together.
2. **Locate and remove the Kernal ROM and disk drive DOS ROM.** Diagrams of the circuit boards in your computer and disk drive are provided, making it easy to locate the position of the ROMs. Use a small, flat bladed screwdriver to pry the stock ROMs from their sockets. Note: Some C-64's have the Kernal ROM soldered directly to the circuit board. In these cases, it may be necessary to acquire assistance in removing the Kernal ROM. All other computer and disk drive ROMs are socketed (no soldering required).
3. **Replace the stock ROMs with the JiffyDOS ROM assemblies.** Press the JiffyDOS ROM assemblies into the sockets that held the stock ROMs.
4. **Mount the ROM selector switches.** The ROM selector switches may be mounted through the plastic computer and disk drive cases (requiring a 1/4" drill); or they may be routed outside of the computer and drive (no drilling required).
5. **Close up your computer and disk drive.** You are ready to use and enjoy JiffyDOS.



Creative Micro Designs, Inc.
50 Industrial Drive
PO Box 646
East Longmeadow, MA 01028

Phone: 413-525-0023
FAX: 413-525-0147